

# In vivo fluorescence imaging

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An abbreviated version of this protocol was published in Science Advances in Sep 2020

Gadofullerene inhibits the degradation of apolipoprotein B100 and boosts triglyceride transport for reversing hepatic steatosis

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## Detailed protocol

- A. Preparation of GF-Ala-Cy5.5
  1. Add GF-Ala (0.5 mmol/L, 5 ml), EDC, and NHS (molar ratio, 1:1:2.5) in flask.
  2. Stir at room temperature for 30 minutes (nitrogen protection).
  3. Add 2 mg Sulfo-Cyanine5.5 amine in flask.
  4. Stir at room temperature for 4 hours (nitrogen protection).
  5. Dialyze for several days (dialysis bag, 3500 D).
  6. The concentration of GF-Ala-Cy5.5, determined as Gd element concentration, is measured by ICP-MS.
- B. Fluorescence imaging
  1. Mice are injected with GF-Ala-Cy5.5 (1.2 mM, 5 ml/kg, intraperitoneal injection).
  2. Mice are anesthetized, sacrificed, and harvested with heart, liver, spleen, lung, kidney, pancreas, and intestine on the 1st, 5th, 12th, and 30th day.
  3. Using fluorescent imaging system (Spectrum CT, PerkinElmer, USA) to image (excitation wavelength: 675 nm; emission wavelength: 720 nm)

**How to cite:** (Readers should cite both the Bio-protocol preprint and the original research article where this protocol was used)

1. Zhou, C. (2020). In vivo fluorescence imaging. Bio-protocol Preprint. [bio-protocol.org/prep627](https://bio-protocol.org/prep627).
2. Zhou, C., Zhen, M., Yu, M., Li, X., Yu, T., Liu, J., Jia, W., Liu, S., Li, L., Li, J., Sun, Z., Zhao, Z., Wang, X., Zhang, X., Wang, C. and Bai, C. (2020). Gadofullerene inhibits the degradation of apolipoprotein B100 and boosts triglyceride transport for reversing hepatic steatosis . Science Advances 6(37). DOI: [10.1126/sciadv.abc1586](https://doi.org/10.1126/sciadv.abc1586)

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